

Notice of Allowability

Application No.

10/500,881

Applicant(s)

HASHIMOTO, NOBUYUKI

Examiner

Minerva Rivero

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/21/06.
2. ☒ The allowed claim(s) is/are 1-61.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. In the Remarks filed 11/21/06, Applicants submitted arguments for allowability of pending claims.

Response to Arguments

2. Applicant's arguments, see Remarks, filed 11/21/06, with respect to claims 1 and 30 have been fully considered and are persuasive. The 35 U.S.C. 102 rejections of claims 1 and 30 have been withdrawn.

Allowable Subject Matter

3. Claims 1-61 are allowed.

Regarding claims 1 and 30 Ootaki *et al.* disclose an optical element and optical apparatus having a light source, an objective lens for focusing a light beam from said light source onto a medium, and a tracking means for moving said objective lens to follow the track of said medium, said liquid crystal optical element comprising:

a first transparent substrate (*glass substrates*, Col. 5, Lines 33-36, see Fig. 2);

a second transparent substrate (*glass substrates*, Col. 5, Lines 33-36, see Fig.

2);

a liquid crystal sealed between said first and second transparent substrates (*liquid crystal molecules between glass substrates*, Col. 5, Lines 33-36, see Fig. 2); and an electrode pattern as a region for advancing or delaying the phase of said light beam and correcting wavefront aberration (Col. 5, Lines 43-46; *opposite-directional phase difference*, Col. 8, Lines 57-64; *appropriate phase differences*, Col. 9, Lines 43-52).

However, no reference alone or in combination discloses said region is formed smaller than the field of view of said objective lens so that said region substantially stays within the field of view of said objective lens regardless of the tracking motion of said tracking means.

Therefore, claims 1 and 30, and dependent claims 2-29 and 31-61, are allowable over the prior art.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kimura *et al.* (US 2003/0185134) disclose a hybrid objective lens having a refractive lens and a diffractive optical element.

Ootaki *et al.* (US 5,901,131) disclose an optical pick-up for use with DVD and CD media.

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Ferguson (US 5,319,481) discloses an encapsulated liquid crystal optical storage medium.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR 12/9/06

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER